euromate

PRO LINE

SCS

Centraal filtersysteem

Central filter system

ERRATUM

Gebruikershandleiding

User manual

TABLE OF CONTENTS

ADDITIONAL INFORMATION USER MANUAL SCS 2

RECOMMENDATION INSTALLATION & SETTINGS 4

MODIFIED FILTER CURVE (STABILIZED FILTERS) 5

CONCEPT 1: FULLY CONTROLLED MULTIPLE FAN SYSTEM 6

CONCEPT 2: UNCONTROLLED ONE FAN SYSTEM 6

CONCEPT 3: SEMI-CONTROLLED ONE FAN SYSTEM 7

CONCEPT 4: FULLY CONTROLLED ONE FAN SYSTEM 7

CONCEPT 5: MASTER-SLAVE SYSTEM 8

CONCEPT 6: CUTTING TABLES 9

© 2000 Euromate B.V.

All rights reserved.
No part of this publication may be copied or published by means of printing, photocopying, microfilm or otherwise without prior written consent of the manufacturer. This restriction also applies to the corresponding drawings and diagrams.

The information given in this document has been collected for the general convenience of our clients. It has been based on general data pertaining to construction material properties and working methods known to us at the time of issue of the document and is therefore subject at any time to change or amendment and the right to change or amend is hereby expressly reserved. The instructions in this publication only serve as a guideline for installation, use, maintenance and repair of the product mentioned on the cover page of this document.

This publication is to be used for the standard model of the product of the type given on the cover page. Thus the manufacturer cannot be held responsible for any damage resulting from the application of this publication to the version actually delivered to you.

This publication has been written with great care. However, the manufacturer cannot be held responsible, either for any errors occurring in this publication for their consequences.

TAKE YOUR TIME TO CAREFULLY READ AND UNDERSTAND THE ERRATUM BEFORE USING THE PRODUCT.
ALWAYS KEEP THIS ERRATUM WITH THE PRODUCT.

Additional information user manual SCS

- Always read the user manual and this additional information sheet before putting into use the SCS (*ref. page 2*).

- Always mount a pre-separator before the SCS unit (*ref. chapter 2.1, 3.2*).

- The SCS has been designed for the following applications only (*ref. page 2*):

  1. MIG/MAG solid wire (GMAW)
  2. MIG/MAG flux cored wire (FCAW)
  3. stick welding (MMA or SMAW)
  4. TIG (GTAW) welding
  5. autogenous/plasma welding

- Never use a SCS in the following situations (*ref. page 3*):

  1. arc-air gouging
  2. oil mist
  3. paint mist
  4. heavy oil mist in welding fumes
  5. hot gases (more than 40°C continuously)
  6. aggressive fumes (such as acids)
  7. grinding aluminium and magnesium
  8. flame spraying
  9. extraction of cement, saw dust, wood dust, etc.
  10. sucking cigarettes, cigars, oiled tissues and other burning particles, objects and acids
  11. in all situations where explosions car occur

- The SCS unit is not suitable for a static pressure over 2500 Pa (*ref. page 2*).

- In contrast to the user manual, we advise against the use of plastic bags in the drum. For this reason plastic bags are not *included (ref. chapter 2.1, 3.1, 5.1, 5.2, 7*).

- Empty both drums frequently and clean them if necessary (*ref. chapter 5.1*).

- For safety reasons the whole unit is internally earthed. Both drum covers are prepared to apply an earth connection to (bolt + nut M4) (*ref. chapter 3.2.2*).

- Also the air inlet and outlet ducts should be properly earthed (*ref. chapter 3.2.1*).

- Use original spare parts only (*ref. chapter 5.2*).

- Please note the intermediate ring E (fig. 5.01 of the user manual) makes contact with the springs on the cleaning mechanism (*ref. chapter 5.2*) while replacing the filters.

- The recommended distance between the extraction source and the SCS unit is 15 m.

- In contrast to the user manual, the max. capacity is 4500-9000 m^3/h (1.1).

- The inlet diameter of the pre-separator PSC has been increased from Ø 600 to Ø 630 *mm (ref. chapter 1.2*) (see also drawing on page 3 of this erratum).

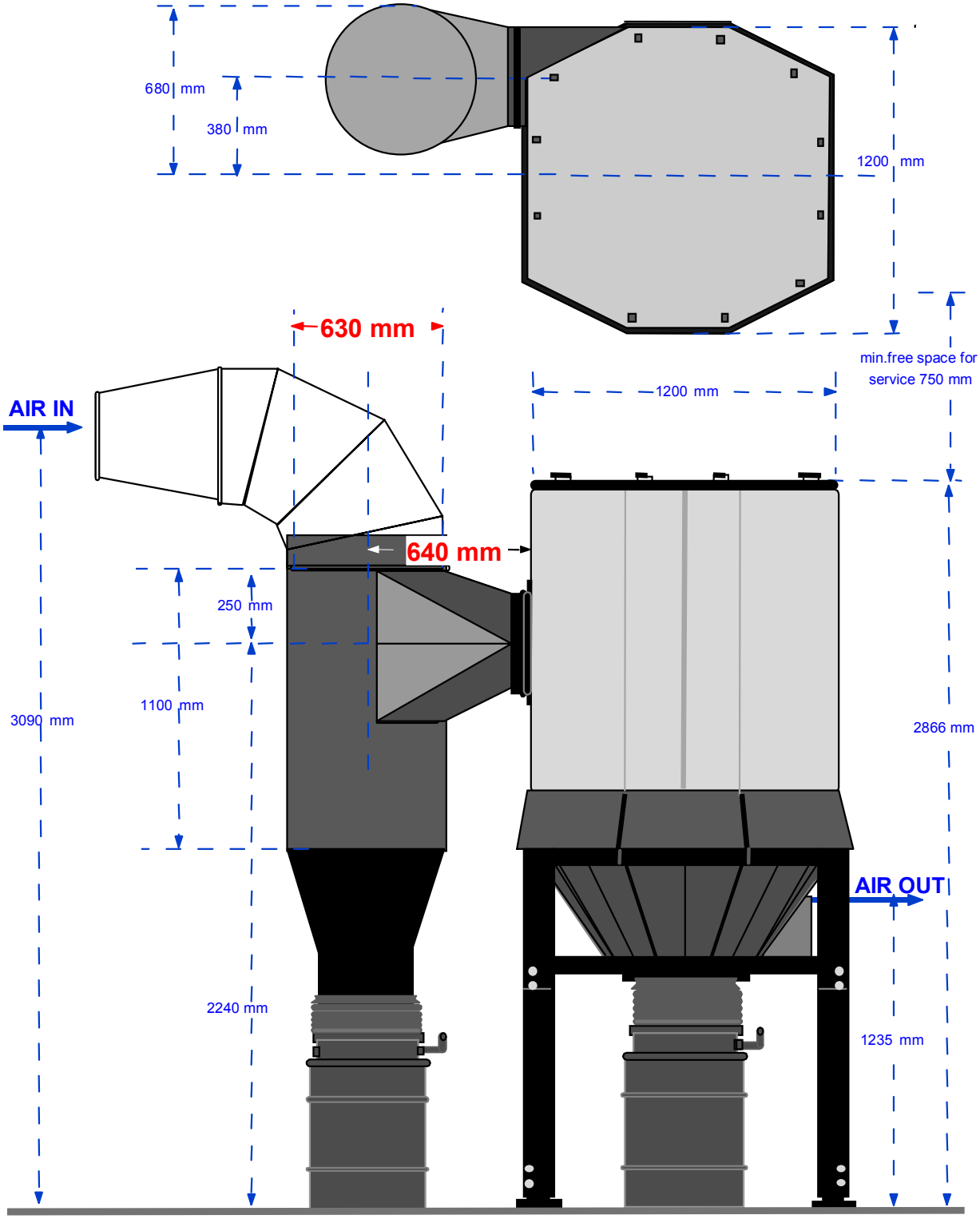
3.2 Installation

In contrast to what is stated in the user manual, the fan can be placed either before or behind the SCS unit.

The SCS can be installed in different ways. The various concepts advised by the manufacturer are stated below.

1. Fully controlled multiple fan system (see fig. 3.01 on page 9 of the user manual)
2. Uncontrolled one fan system
3. Semi-controlled one fan system
4. Fully controlled one fan system
5. Master-slave system
6. Cutting tables

The components required for each of the various concepts are specified as of page 6.


680 mm
380 mm
1200 mm
630 mm
min.free space for
service 750 mm
1200 mm
AIR IN
640 mm
250 mm
1100 mm
3090 mm
2866 mm
AIR OUT
2240 mm
1235 mm

Recommendation installation & settings

For an optimal functioning of the SCS installation, the manufacturer prescribes to follow the instructions stated in the user manual and to program the following settings.

General
In order to guarantee a maximum extraction volume, it is necessary to clean the filter on time (see user manual SCS, chapter 4.2 Control). During normal use the filter will be cleaned automatically. This cleaning is activated by the pressure difference switch that measures the saturation of the filter. Depending on the pre-set pressure, in other words the extraction volume, the filter will be cleaned.

For applications with *high dust quantities*, (e.g. cutting tables), you should always use the time controlled and the off-line cleaning method (see chapter 4.2.4 Time controlled operation). By means of this time controlled operation it is possible to have the filters cleaned with specific intervals during a certain period of time.
For example: time setting from 07.00 to 17.00 h, 1 cleaning jet per 5 minutes. In combination with the off-line cleaning method, the extraction volume will remain at a maximum.

Off-line cleaning means filter cleaning with switched off fan. In this way the dust particles will easier fall down into the drum.

Next to the possibilities stated above, it is possible to clean the filters manually (see chapter 4.2.3 Manual operation).

Settings SCS
Depending on the application of the SCS, the manufacturer advises the following settings:

Setting	Cutting tables	Multiple arm systems	Push-pull systems
ΔP switch	1500/2000 Pa*) (15/20 mbar)	800 Pa (8 mbar) (individual fan) 1200 Pa (12 mbar) (central fan)	1500 Pa (15 mbar)
Compressed air pressure	7,5 bar	5-6 bar	5-6 bar
Week timer/hours	07.00-17.00 h**)	07.00-17.00 h**)	07.00-17.00 h**)
Week timer/days	1-5**)	1-5**)	1-5**)
Time relay	1 pulse/5 minutes	1 pulse/10 minutes	1 pulse/10 minutes

*) The setting of the ΔP switch is depending on total pressure of the fan.

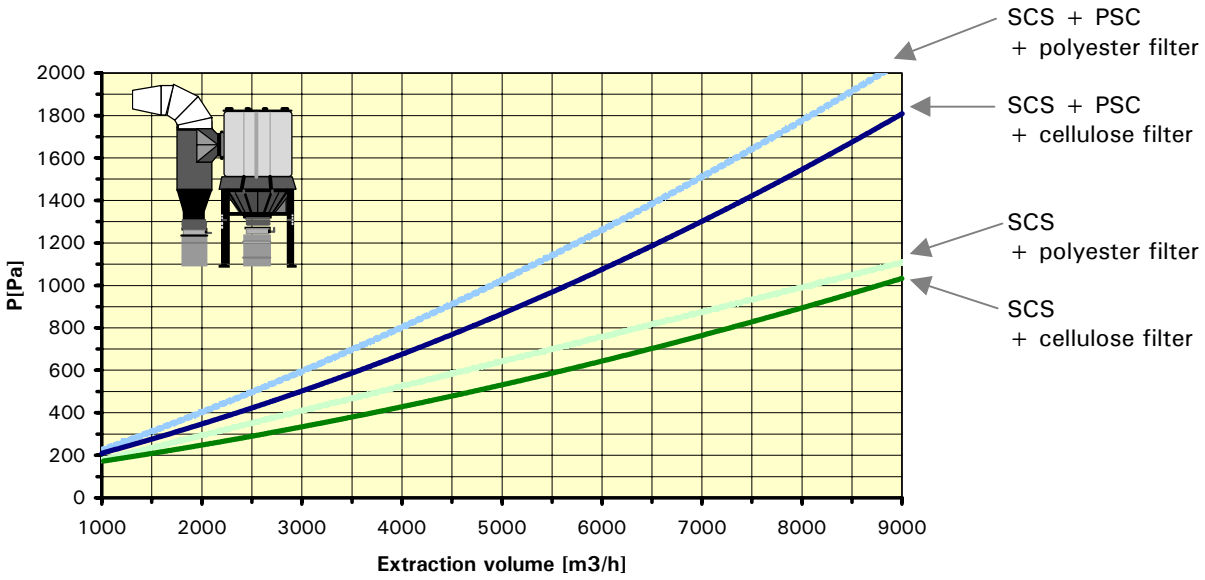
**) The stated times and days of the week timer must only be regarded as an example. For these settings the relevant week times and days should be programmed. For off-line cleaning the programmed time should be increased by approximately 2 hours (see user manual of the week timer).

Recommendations installation SCS
Apart from the stated recommendations and settings, the following matters should be checked before and during use of the installation.

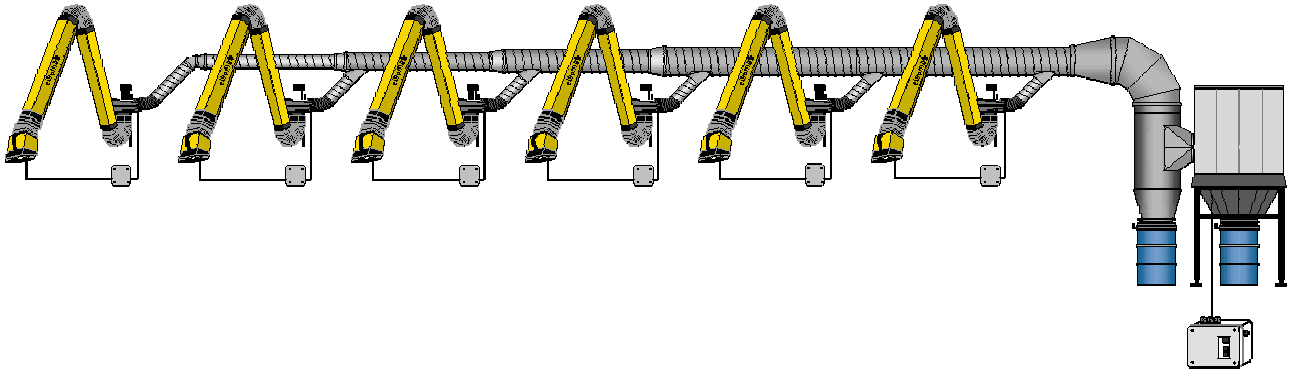
- Before installing the SCS unit, check the turning of the "shower arm" of the cleaning unit manually; it should turn in one direction only.
- During installation of the unit, check whether the programmed times of the time controlled operation are actually functional.
- Check whether sufficient compressed air on behalf of the filter cleaning is available during the whole day.
- For off-line cleaning, check whether sufficient compressed air is available, also after working hours.
- Check the condition of the filter regularly (every three of six months).
- Empty the drums regularly.
- Attention: After power breakdown or disconnection of the power supply to the CB-6000-MS, the week timer has a back-up time of 24 hours.
- In case of master-slave systems, mutually connect the ΔP switches of the units (see diagram master-slave systems).
- When using fans with an overcapacity of total pressure, arrange protection against overloading (ΔP over the filter max. 2000 Pa).

For stabilized cellulose and polyester filters: see resistance curve on the next page.

Modified filter curve (stabilized filters)



Concept 1:
Fully controlled multiple fan system

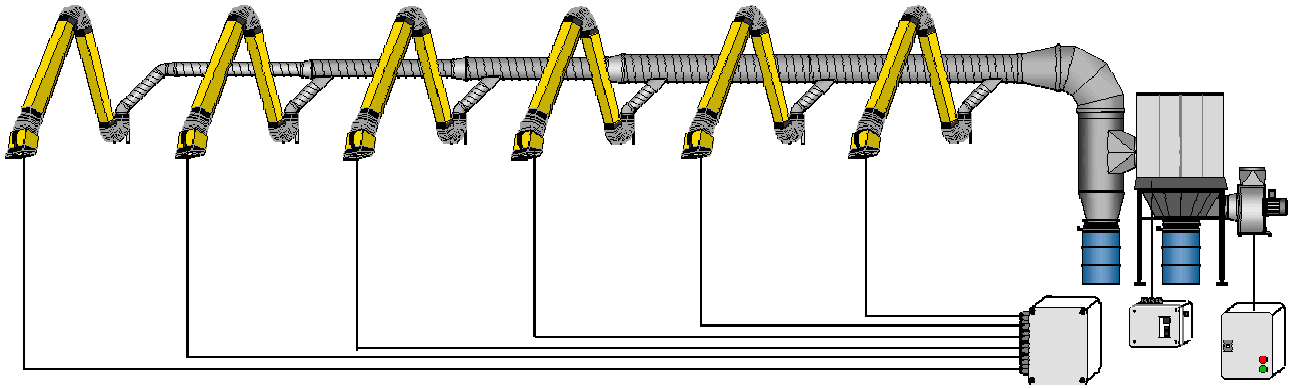


Components:

6 x SNF 4U A O 435	UltraFlex 4 + FAN 28 (400V/3ph/50Hz), incl. working light en automatic start/stop with hood control and accessories (option)
6 x NRV	Non-return valve
1 x SCS1 O C 1 M 00	SCS with orientation 1 + Air Inlet 0° with cellulose cartridge filter, pre-separator PSC and control box CB-SCS

For remarks concerning standard SCS installation: see user manual 3.2 Installation

Concept 2:
Uncontrolled one fan system



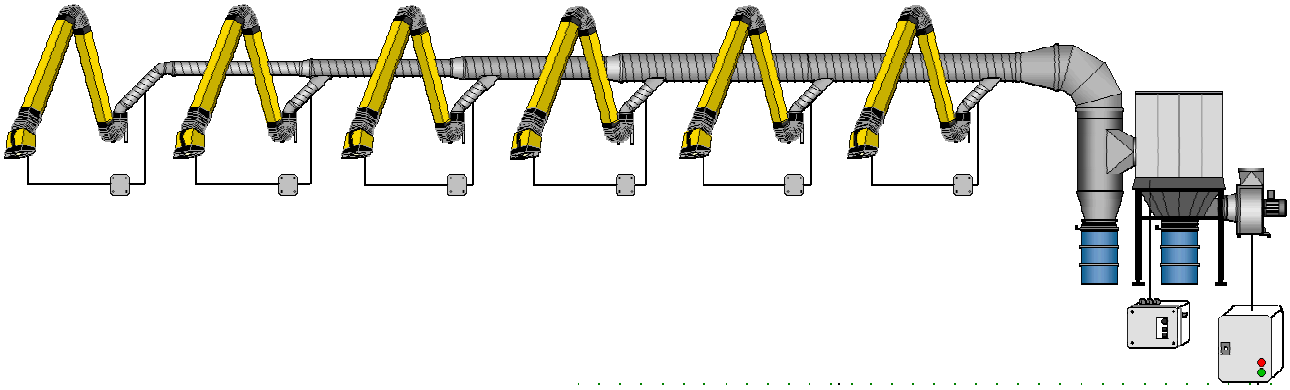
Components:

6 x UltraFlex 4 + 6 x NMB + 6 x NCF	Extraction arm 4 m + wall bracket + connection flange
6 x WL + 1 x PP 6	Working light + power supply for 6 working lights (option)
6 x MD 200	Manual damper
1 x SCS1 O C 1 M 00	SCS with orientation 1 + Air Inlet 0° with cellulose cartridge filter, pre-separator PSC and control box CB-SCS
1 x FAN 110 (435)	Central fan (400V/3ph/50Hz)
1 x SD 7.5 + NTR	Star delta switch with thermal relay

Remarks:

- Always mount a pre-separator PSC before the SCS unit.
- The manufacturer advises to mount an MD 200 in each extraction arm. In this way, the system can be adjusted to obtain an equal extraction volume at each arm.
- The fan can be placed either before or behind the pre-separator.
- Make sure to keep sufficient space around the system in view of service and repair jobs.

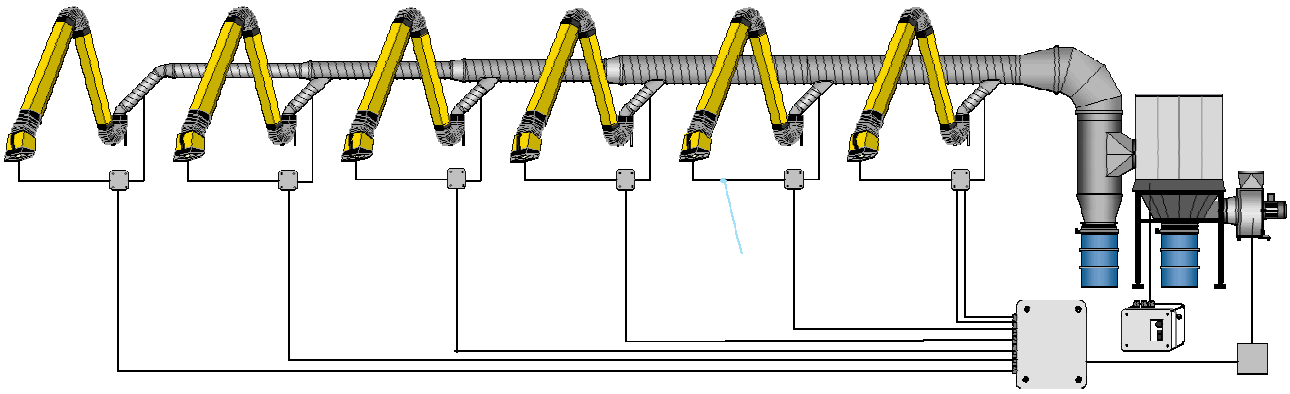
Concept 3:
Semi-controlled one fan system



Components:

6 x UltraFlex 4 + 6 x NMB + 6 x NCF	Extraction arm 4 m + wall bracket + connection flange
6 x WL + AST + NCW + CB	Working light + automatic start/stop + control box
6 x MD 200	Manual damper
6 x AD 200	Automatic damper
1 x SCS1 O C 1 M 00	SCS with orientation 1 + Air Inlet 0° with cellulose cartridge filter, pre-separator PSC en control box CB-SCS
1 x FAN 110 (435)	Central fan (400V/3ph/50Hz)
1 x SD 7.5 + NTR	Star delta switch with thermal relay

Concept 4:
Fully controlled one fan system



Component:

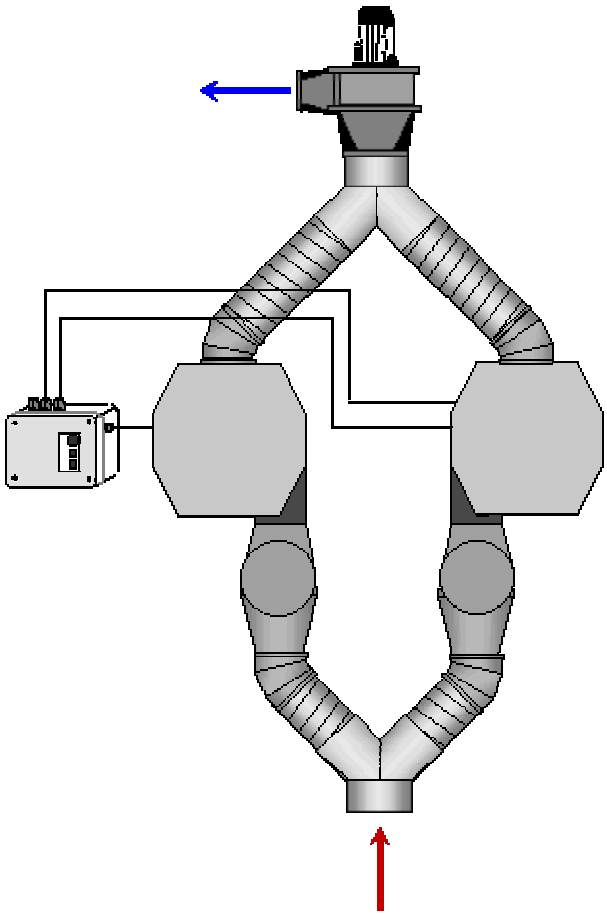
6 x UltraFlex 4 + 6 x NMB + 6 x NCF	Extraction arm 4 m + wall bracket + connection flange
6 x WL + AST + NCW + CB	Working light + automatic start/stop + control box CB
6 x MD 200	Manual damper
6 x AD 200	Automatic damper
1 x SCS1 O C 1 M 00	SCS with orientation 1 + Air Inlet 0° with cellulose cartridge filter, pre-separator PSC en control box CB-SCS
1 x FAN 110 (435)	Central fan (400V/3ph/50Hz)
1 x IF 15	Interface between workplace and frequency control
1 x FREQ 110	Frequency control (non-Euromate product)

Remarks:

- Always mount a pre-separator PSC before the SCS unit.
- Mount the AD 200 between the extraction arm and the central ductwork.
- When using a frequency control, an AD 200, an AST, a CB and an IF 15 are required as well.

- During operation time of this system, the frequency control has to be set in the stand-by position. When a valve is opened automatically due to the start of welding activity, the frequency control will switch on the fan, thus creating an airstream at the extraction arm in question. When the welding stops, the fan will be switched off automatically after a certain period.
- The fan can be placed either before or behind the pre-separator.
- Make sure to keep sufficient space around the system in view of service and repair jobs.

Concept 5:
Master-slave system

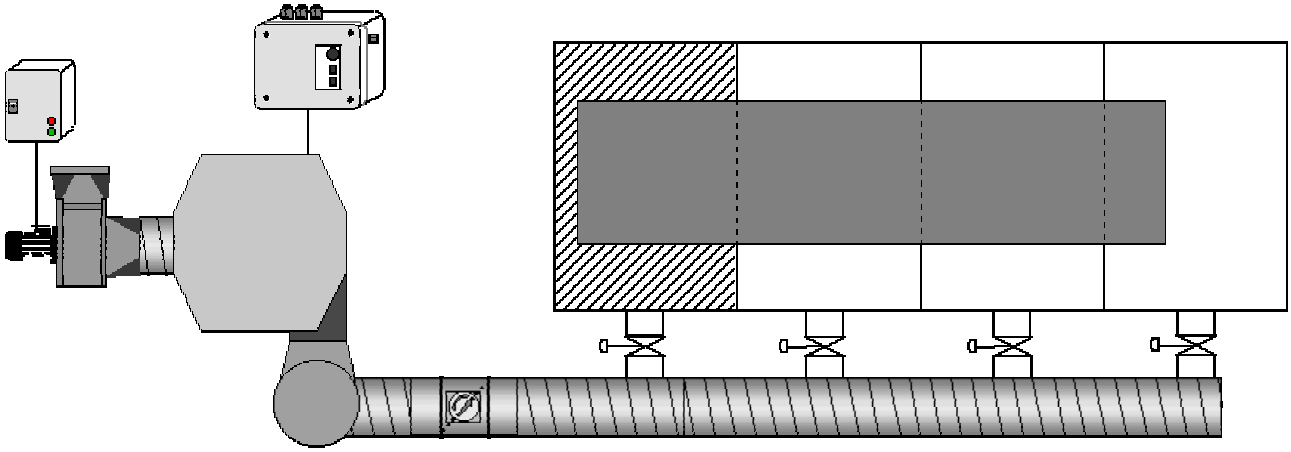


The SCS can be connected in parallel with a maximum of four units. Make sure to install the ductwork symmetrical in order to achieve an equal load at each unit. In such cases, the filter cleaning will be controlled by the "master" unit (see electrical and pneumatic diagram). This means that one SCS needs to be provided with a CB-SCS and the other units without ("slaves").

Components:

1 x SCS1 O C 1 M 00	SCS with control box CB-SCS (master unit)
1 x SCS1 O C 1 S 00	SCS without control box (slave unit)
1 x central fan	Non-Euromate product

Concept 6:
Cutting tables



Components:

	Cutting table
1 x SCS1 O C 1 M 00	SCS with orientation 1 + Air Inlet 0° with cellulose cartridge filter, pre-separator PSC and control box CB-SCS
FAN 90 (435)	Fan (400V/3ph/50Hz)
SD 7.5 + NTR	Start delta switch with thermal relay
MD 400	Manual damper

Remarks:

- Always mount a pre-separator PSC before the SCS unit.
- Mount the MD 400 between the duct and the pre-separator.
- Throttle the air volume during the first 25 operation hours, so that the filter gets polluted gradually, After these 25 hours the damper can be opened entirely.
- Repeat this procedure after replacement of the filters.
- The fan can be placed either before or behind the pre-separator.
- Make sure to keep sufficient space around the system in view of service and repair jobs.

Euromate B.V.
Wezelkoog 11, 1822 BL Alkmaar
P.O. Box 9350, 1800 GJ Alkmaar
Holland

Art. no. 0507431010
Version 01/00